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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/748,224      | 12/31/2003  | Robert Walker        | 0928.0003C          | 7144             |

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ROCKVILLE, MD 20850

EXAMINER

SCHLIE, PAUL W

ART UNIT PAPER NUMBER

2186

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                       |  |
|------------------------------|--------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/748,224 | <b>Applicant(s)</b><br>WALKER, ROBERT |  |
|                              | <b>Examiner</b><br>Paul W. Schlie    | <b>Art Unit</b><br>2186               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-53 have been examined.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 13, 20, 22, 36 and 49 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fandrich et al. (5,509,134).

As per claims 1, 13, 20, 22, 36 and 49, Fandrich et al. teaches a memory device comprising: an imbedded memory access controller interconnected with a command interface, status/access-parameter registers, a memory storage array, and pre-defined commands including corresponding means to enable a plurality of otherwise user-defined commands indicated by an operational code to be defined and then subsequently invoked through the said command interface, where the commands themselves may utilize access-parameters stored in said registers, and/or other pre-defined commands to enable flexible internally controlled externally initiated access to

the data stored within the said memory device; thereby all claimed elements/limitations are considered explicit and/or obviously inherent in that taught (see figures 2-6a, the abstract lines 2-14, column 2 lines 15-42, column 8 lines 23-64, column 9 lines 46-60, column 10 lines 37-48, and column 12 lines 40-52).

5. Claims 2-12, 14-19, 23-31, 33-34, 36-45, 47 and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fandrich et al. (5,509,134) in further view of Walker (US App. 10/748,224).

As per claims 2-12, 14-19, 23-31, 33-34, 36-45, 47 and 50-53, being dependant on or predominantly equivalent to claim 1, 13, 17, 20, 22, 36, 49, or corresponding dependant claim inclusively; Fandrich et al. further teaches that said commands may include read and write commands (see column 6 lines 46-63); but does not explicitly teach that commands may include a terminate command, nor that access parameters may correspondingly include read/write burst-length, access latency, and/or output drive strength parameters. However Walker acknowledges the use of such user-definable parameters and thereby implicitly a terminate command (i.e. to enable termination of a burst access) as prior art (see Description of the Related Art: page 1 paragraph 1); and as any combination of control/address/data bits may be considered to compose an operation code for a command, and that control and mode modules are considered inherent in that taught although depicted differently; it would be obvious to one of ordinary skill in the art at the time of the claimed invention to combine that taught by Fandrich et al. with that acknowledged by Walker as prior art relevant to the claims, for the benefit of enabling such a memory device to more flexibly and/or efficiently interface

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to an external device. Any and all claimed limitations potentially not otherwise explicitly addressed are correspondingly considered obviously inherent in that taught, and/or not sufficient to patentably distinguish over prior art.

6. Claims 21, 32, 35, 46 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fandrich et al. (5,509,134) and Walker (US App. 10/748,224) in further in view of Walker et al. (6,088,760).

As per claims 21, 32, 35, 46 and 48, being dependant on claim 20, 30, 22, 44, or 36 respectively, but where neither Fandrich et al. nor Walker explicitly teach the references cited that the said memory array may be a DRAM, nor that an auto-refresh command may be supported. However Walker teaches this for a similar disclosed memory device (see column 8 lines 6-13); therefore it would be obvious to one of ordinary skill in the art to combine that which is cumulatively taught by Fandrich et al. and Walker, with that taught by Walker et al. relevant to the claims, for the benefit of enabling the efficient utilization of a DRAM memory storage array within such a memory device.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul W. Schlie whose telephone number is 571-272-6765. The examiner can normally be reached on Mon-Thu 8:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Kim can be reached on 517-272-4182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PIERRE BATAILLE  
PRIMARY EXAMINER

12/21/05